Species

Warm-Season Grass

Bermuda Grass

Illinois

General Information

Bermuda grass is a warm-season grass widely grown in the South and has not been grown extensively in Illinois except in some of the state's southernmost counties.

Bermuda grass has been controversial because of the persistence and possible intrusion into row crop fields.

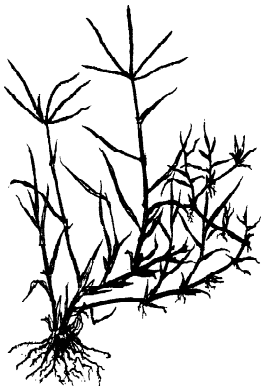
Bermuda grass' quality drops considerably from summer to fall, and there seems to be little difference in quality between Bermuda grass and tall fescue during late summer. Animals requiring high quality forage during late summer probably should graze some other species.

Three varieties of Bermuda grass - Midland, Hardie and Greenfield - are suggested most often for Illinois. Greenfield is less winter hardy than Midland, and in Oklahoma tests, yield was lower. Some wild strains are also present. One observation that often leads to confusion is that wild Bermuda grass grows as far north as the Illinois River. These common strains of Bermuda grass are comparatively low yielding and unpalatable to livestock. Hardie has shown the best winter hardiness and has out produced other varieties in trials in South Illinois. Guymon is a strain of improved common Bermuda grass that shows good winter survival. Guymon is generally less productive than the hybrid varieties.

Adaptability

Bermuda grass will grow in south Illinois, although the exact line where winter hardiness becomes a problem is not well defined. The line probably is somewhere between Springfield and Clinton.

Even within the apparent area of adaptation, there is much variation in winter survival from year to year. Some fields have survived farther north in Illinois, but the performance has been erratic. The grass seems to do well for five or six years, and then seems to produce below normal for several years. Fertility may be to blame.



Bermuda grass is best adapted to deep, sandy loam and medium-textured soils, and can be grown on shallow soils, but management and fertilization become more critical. Bermuda grass, like most grasses, does best at a pH of 5.5 or above. Bermuda grass requires considerably more moisture than native warm-season grasses.

Bermuda grass is more drought resistant than Dallis grass, carpet grass or Bahia grass, but will not grow very well in arid conditions. Bermuda grows well on well-drained soils, but not on waterlogged or tight soils. In extreme south Illinois, there is a strong possibility that Bermuda grass will respond to irrigation more than any other grass species.

Guymon Bermuda grass is the only selection that can be seeded in Illinois. All other varieties should be sprigged between March 1 and June 1. Early plantings on a clean, firm seedbed usually will have adequate moisture for starting early growth in the spring.

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USDA NRCS Natural Resources Conservation Service
University of Illinois Extension College of Agriculture, Consumer and Environmental Sciences
Illinois Department of Agriculture
ILGLCI Illinois Grassland Conservation Initiative

Establishment

Sprig Bermuda grass in 20 to 40-inch rows. Roots should be placed in firm, moist soil and covered no more than one to two inches. To have one end of the sprigs slightly exposed is desirable.

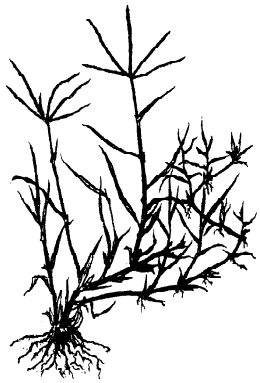
Mechanical sprigging machines area usually used, except for small areas. Close rows and high sprigging rates are important for getting quick cover, especially on pond embankments, waterways, gully slopes and other highly-erodible areas.

New plantings should be top dressed with 30 to 50 pounds-of actual nitrogen when Bermuda grass has grown six to ten inch runners.

Herbicides probably should be used in the year of establishment to control germinating grass and broadleaved weeds. Contact your local NRCS or University Extension office for specific seeding, sprigging and weed control recommendations.

Management

New Bermuda grass plantings should not be grazed until runners have lapped between sprigged rows. When good ground cover is established, the grass may be grazed to a three to four inch stubble. Grazing can begin on well-established Bermuda grass when the grass is four to six inches tall.



Best results have been noted when pastures have been rotated, with usually no more than 14 days on any one pasture. As with all grasses, cattle tend to spot graze. Pastures may be cut to ensure uniform quality and palatability. Bermuda grass quality declines after about 30 days growth. Accumulated Bermuda grass can be grazed during the fall and winter, but low in protein.

Bermuda grass may be used for hay, but the quality depends on its stage of growth at harvest time. Initial cut should be when plants are 14 to 18 inches and every 29 to 32 days. Cuttings should be made 20 to 30 days after nitrogen is applied. Bermuda grass needs 50 to 60 pounds of nitrogen per acre for each ton of hay production expected.

Phosphorus and potash may be applied in one application in the spring, but nitrogen should be applied in increments of 50 to 60 pounds per acre about every 30 days. Fertilizer should not be applied before May 15. Earlier applications stimulate cool-season plant growth, which competes with Bermuda grass.

Where To Get Help

For more information about Bermuda grass, contact the local office of the USDA Natural Resources Conservation Service listed in the telephone directory under “U.S. Government,” or the University of Illinois Cooperative Extension Service.

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